What is claimed is:

1. An article comprising:

a substrate comprising an inlet end, an outlet end, axial wall elements extending from the inlet end to the outlet end, and a plurality of axially enclosed channels defined by the the wall elements, with at least some of the channels having a channel inlet at the inlet end and a channel outlet at the outlet end;

a first inlet layer located on the walls and extending for at least part of the length from the inlet end toward the outlet end to an inlet layer axial end, with the first inlet layer extending for only part of the length from the inlet end toward the outlet end, the at least one inlet layer comprising a first inlet composition comprising at least one first inlet component selected from first inlet base metal oxides;

the first inlet layer coated by a method comprising the steps of:

passing a fluid containing the first inlet composition into the inlet end of the substrate to form the first inlet layer; and

applying a vacuum to the outlet end while forcing a heated gas stream through the channels from the inlet end without significantly changing the length of the first inlet layer.

2. The article as recited in claim 1 wherein the first inlet base metal oxides are selected from a first inlet refractory oxide, a first inlet rare earth metal oxide, a first inlet transition metal oxide, and a first inlet alkaline earth metal oxide, and a first inlet molecular sieve.

3. The article as recited in claim 1 wherein the heated gas is air.

4. The article as recited in claim 1 wherein the temperature of the heated gas is from 75°C to 400°C.

5. The article as recited in claim 4 wherein the temperature of the heated gas is from 75°C to 200°C to dry the inlet layer.

6. The article as recited in claim 1 further comprising at least one first inlet precious metal component.

7. The article as recited in claim 6 wherein the temperature of the heated gas is from 75°C to 400°C.

8. The article as recited in claim 7 wherein the temperature of the heated gas is from 200°C to 400°C to fix the first inlet precious metal component.

9. The article as recited in claim 1 further comprising

at least one second inlet layer located on the walls and extending for at least part of the length from the inlet end toward the outlet end to a second layer axial end, the at least one second layer supported directly or indirectly on the first inlet layer for at least part of the length of the first inlet layer, the at least one second layer comprising a second inlet composition comprising at least one second inlet component selected from second inlet base metal oxides;

the at least one second inlet layer coated by a method comprising the steps of:

passing a fluid containing the at least one second inlet composition into the inlet end of the substrate to form the at least one inlet layer; and

applying a vacuum to the outlet end while forcing a heated gas stream through the channels from the inlet end without significantly changing the length of the at least one second inlet layer.

10. The article as recited in claim 9 wherein the at least one second inlet base metal oxides are selected from a second inlet refractory oxide, a second inlet rare earth metal oxide, a second inlet transition metal oxide, and a second inlet alkaline earth metal oxide, and a second inlet molecular sieve.

11. The article as recited in claim 9 wherein the heated gas is air.

12. The article as recited in claim 9 wherein the temperature of the heated gas is from 75°C to 400°C.

13. The article as recited in claim 12 wherein the temperature of the heated gas is from 75°C to 200°C to dry the inlet layer.

14. The article as recited in claim 9 further comprising at least one second inlet precious metal component.

15. The article as recited in claim 14 wherein the temperature of the heated gas is from 75°C to 400°C.

16. The article as recited in claim 15 wherein the temperature of the heated gas is from 200°C to 400°C to fix the precious metal component.

17. The article as recited in claim 16 wherein there is at least one precious metal component selected from the first inlet precious metal component and the second inlet precious metal component.

18. The article as recited in claim 17 wherein there is at least one precious metal component selected from the first inlet precious metal component and the second inlet precious metal component and said precious metal components are selected from at least one of platinum, palladium, rhodium, ruthenium and iridium components.

19. The article as recited in claim 1 further comprising:

a first outlet layer located on the walls and extending for at least part of the length from the outlet end toward the inlet end to an outlet layer axial end, with the first outlet layer extending for only part of the length from the outlet end toward the inlet end, the at least one outlet layer comprising a first outlet composition comprising at least one first outlet component selected from first outlet base metal oxides;

the first outlet layer coated by a method comprising the steps of:

passing a fluid containing the first outlet composition into the outlet end of the substrate to form the first outlet layer; and

applying a vacuum to the outlet end while forcing a heated gas stream through the channels from the outlet end without significantly changing the length of the first outlet layer.

20. The article as recited in claim 19 wherein the first outlet base metal oxides are selected from a first outlet refractory oxide, a first outlet rare earth metal oxide, a first outlet transition metal oxide, and a first outlet alkaline earth metal oxide and first outlet molecular sieves.

21. The article as recited in claim 20 wherein the heated gas is air.

22. The article as recited in claim 19 wherein the temperature of the heated gas is from 75°C to 400°C.

23. The article as recited in claim 22 wherein the temperature of the heated gas is from 75°C to 200°C to dry the outlet layer.

24. The article as recited in claim 19 further comprising at least one first outlet precious metal component.

25. The article as recited in claim 24 wherein the temperature of the heated gas is from 75°C to 400°C.

26. The article as recited in claim 25 wherein the temperature of the heated gas is from 200°C to 400°C to fix the first outlet precious metal component.

27. The article as recited in claim 19 further comprising:

at least one second outlet layer located on the walls and extending for at least part of the length from the outlet end toward the inlet end to a second layer axial end, the at least one second layer supported directly or indirectly on the first outlet layer for at least part of the length of the first outlet layer, the at least one second layer comprising a second outlet composition comprising at least one second outlet component selected from second outlet base metal oxides;

the at least one second outlet layer coated by a method comprising the steps of:

passing a fluid containing the at least one second outlet composition into the outlet end of the substrate to form the at least one outlet layer; and

applying a vacuum to the outlet end while forcing a heated gas stream through the channels from the outlet end without significantly changing the length of the at least one second outlet layer.

28. The article as recited in claim 27 wherein the at least one second outlet base metal oxides are selected from a second outlet refractory oxide, a second outlet rare earth metal oxide, a second outlet transition metal oxide, and a second outlet alkaline earth metal oxide, and a second outlet molecular sieve.

29. The article as recited in claim 27 wherein the heated gas is air.

30. The article as recited in claim 27 wherein the temperature of the heated gas is from 75°C to 400°C.

31. The article as recited in claim 30 wherein the temperature of the heated gas is from 75°C to 200°C to dry the outlet layer.

32. The article as recited in claim 27 further comprising at least one second outlet precious metal component.

33. The article as recited in claim 32 wherein the temperature of the heated gas is from 75°C to 400°C.

34. The article as recited in claim 33 wherein the temperature of the heated gas is from 200°C to 400°C to fix the precious metal component.

35. The article as recited in claim 32 wherein there is at least one precious metal component selected from the first outlet precious metal component and the second outlet precious metal component.

36. The article as recited in claim 35 wherein there is at least one precious metal component selected from the first outlet precious metal component and the second outlet precious metal component and said precious metal components are selected from at

least one of platinum, palladium, rhodium, ruthenium and iridium components.

37. The article as recited in claims 19 or 27 wherein at least a portion of at least one of the first or second inlet layers over laps with at least one of the first or second outlet layers.

38. The article as recited in claims 1, 9, 19 or 27 wherein the substrate has at least two adjacent zones, a first zone and a second zone, each extending axially along the length of conduit wherein the first zone extends from the inlet and the second zone extends from the outlet along a separate length of the conduit than the first zone with each zone comprising the same catalyst architecture with said zone.

39. The article as recited in claim 37 wherein the at least one layer of said first zone, and at least one layer of said second zone overlap to form at least one intermediate zone between the first zone and the second zone.

40. The article as recited in claim 37 wherein there is an uncoated zone between the first zone and the second zone.

41. The article as recited in claim 37 wherein there are at least three zones.

42. The article as recited in claims 1, 9, 19 or 27 wherein the substrate comprises a monolithic honeycomb comprising a plurality of parallel channels extending from the inlet to the outlet.

43. The article as recited in claim 42 wherein the honeycomb is selected from the group comprising ceramic monoliths and metallic monoliths.

44. The article as recited in claim 42 wherein the honeycomb is selected from the group comprising flow through monoliths and wall flow monoliths.

45. The article as recited in claims 1, 9, 19 or 27 wherein at least one layer contains no precious metal component.

46. The article as recited in claims 1, 9, 19 or 27 wherein the comprising at least one inlet layer and at least one outlet layer, at least inlet composition comprising at least one first inlet refractory oxide composition or composite comprising a first inlet refractory oxide selected from the group consisting of alumina, titania, zirconia and silica, an inlet and optionally a zeolite, and at least one inlet precious metal component, and the at least one outlet layer comprising an outlet composition comprising at least one outlet refractory oxide composition or selected from the group consisting of alumina, titania, zirconia and silica, and at least one second outlet precious metal component, and optionally an outlet zeolite.

47. The article as recited in claim 46 wherein the inlet compositions contain substantially no oxygen storage components.

48. The article as recited in claim 47 wherein the inlet compositions contain substantially no oxygen storage components selected from praseodymium and cerium components.

49. The article as recited in claim 46 wherein at least one of the outlet compositions contain an oxygen storage components.

50. The article as recited in claim 49 wherein at least one of the outlet compositions contains an oxygen storage component selected from praseodymium and cerium components.

51. The article as recited in claim 46 wherein the at least one inlet precious metal component is fixed to the at least one of the inlet refractory oxide composition or composite and the first rare earth metal oxide, and the at least one of the outlet precious metal component is fixed to the at least one of the outlet refractory oxide composition or composite and the rare earth metal oxide.

52. A method comprising:

passing at least one inlet end fluid comprising an inlet end coating composition into a substrate, the substrate comprising an inlet end, an outlet end, wall elements extending between the inlet end to the outlet end and a plurality of axially enclosed

channels defined by the wall elements, at least some of the channels having a channel inlet at the inlet end and a channel outlet at the outlet end, the aqueous liquid passing into the channel inlets and extending for at least part of the length from the inlet end toward the outlet end to form at least one inlet end layer coating, with at least one inlet end coating extending for only part of the length from the inlet end toward the outlet end;

applying a vacuum to the outlet end while forcing a gas stream through the channels from the inlet end after the formation of each inlet end coating without significantly changing the length of each inlet layer coating;

passing at least one outlet end aqueous fluid comprising at least one outlet end coating composition into the substrate through the at least some of the channel outlets at the substrate outlet end, the aqueous liquid passing into the channels and extending for at least part of the length from the outlet end toward the inlet end to form at least one outlet end layer coating.

53. The method as recited in claim 52 further comprising applying a vacuum to the inlet end while forcing a gas stream through the channels from the outlet end after the formation of each outlet end coating without significantly changing the length of each outlet layer coating.

54. The method as recited in claim 52 wherein at least one outlet end coating extends for only part of the length from the outlet end toward the inlet end.

55. The method as recited in claim 52 wherein at least one inlet layer comprises a first inlet composition comprising at least one first inlet component selected from a first refractory oxide and a first inlet rare earth metal oxide and optionally at least one first inlet precious metal component.

56. The method as recited in claim 53 wherein at least one outlet layer comprises a first composition comprising at least one first outlet component selected from a first refractory oxide and a first outlet rare earth metal oxide and optionally at least one first outlet precious metal component.

57. The method as recited in claims 55 or 56 further comprising the step of fixing the at least one precious metal component selected from the inlet precious metal component of the at least one inlet layer and the outlet precious metal component of the at least one outlet layer to said at least one of the respective inlet or outlet component selected from the inlet refractory oxide and inlet rare earth metal oxide components, and the outlet refractory oxide and outlet rare earth metal oxide components, the fixing being conducted prior to coating the inlet and outlet layers.

58. The method as recited in claim 57 wherein the step of fixing comprises chemically fixing the precious metal component on the respective refractory oxide and/or rare earth metal oxide.

59. The method as recited in claim 58 wherein the step of fixing comprises thermally treating the precious metal component on the respective refractory oxide and/or rare earth metal oxide.

60. The method as recited in claim 59 wherein the step of fixing comprises calcining the precious metal component on the respective refractory oxide and/or rare earth metal oxide.

61. The method as recited in claim 60 wherein the step of calcining is conducted at from 250°C to 900°C at from 0.1 to 10 hours.

62. The method as recited in claims 52 or 53 further comprising the steps of thermally fixing each layer after coating and prior to coating a subsequent layer.

63. The method as recited in claim 62 further comprising the step of thermally treating the substrate upon completion of coating all layers at from 200°C to 400°C at from 1 to 10 seconds.

64. The method as recited in claim 52 further comprising the steps of calcining the substrate upon completion of coating all layers.

65. The method as recited in claim 64 wherein the step of calcining is conducted at from 250°C to 900°C at from 0.1 to 10 hours.

66. A method for coating a substrate comprising an inlet end, an outlet end, axial wall elements extending from the inlet end to the outlet end and a plurality of axially enclosed channels defined by the wall elements, with at least some of the channels having a channel inlet at the inlet end and a channel outlet at the outlet end, comprising the steps of:

a) partially immersing the substrate at the inlet end into a vessel containing a first coating composition, at least once, to form at least one first layer located on the walls and extending for at least part of the length from the inlet end toward the outlet end, with at least one inlet end coating extending for only part of the length from the inlet end toward the outlet end;

b) partially immersing the substrate at the outlet end into a vessel containing a second coating composition, at least once, to form at least one second layer located on the walls and extending for at least part of the length from the outlet end toward the inlet end; and

c) thermally treating the substrate after each immersion step, to form at least two zones, a first zone extending from the inlet end and a second zone, each extending along the channels wherein the second zone extends along a separate length of the channel than the first zone.

67. The method as recited in claim 66 further comprising the steps of thermally fixing each layer after coating and prior to coating a subsequent layer.

68. The method as recited in claim 66 further comprising the steps of thermally treating the substrate upon completion of coating all layers at from 200°C to 400°C at from 1 to 10 seconds.

69. The method as recited in claim 66 further comprising the step of calcining the substrate.

70. The method as recited in claim 69 wherein the step of calcining is conducted at from 250°C to 900°C at from 0.1 to 10 hours.

71. The method as recited in claim 66 further comprising the step of applying a vacuum to the partially immersed substrate at an intensity and a time sufficient to draw the coating media upwardly from the bath into each of the channels to form a uniform coating profile therein for each immersion step.

72. The method as recited in claim 66 comprising the step thermally fixing after immersing the substrate inlet end, turning the substrate over and immersing the outlet end.

73. The method as recited in claim 66 wherein there is an uncoated portion of the channel between the first and second zones.

74. A method comprising the steps of:

contacting a gas comprising nitrogen oxide, carbon monoxide and hydrocarbon with an article as recited in claims 1 or 19.